The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least one thin film transistor formed on said insulating surface, said thin film transistor having a semiconductor layer comprising source, drain and channel regions;

an insulating film comprising an inorganic material formed on said thin film transistor;

an organic resin film provided over said insulating film; and

a pixel electrode formed over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film,

wherein said semiconductor layer exhibits a peak of Raman spectra, displaced from a peak of single crystalline silicon to the lower frequency direction,

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

2. (Original) A device according to claim 1 wherein said pixel electrode is a transparent conductive film.

3. (Original) A device according to claim 1 wherein said inorganic material comprises silicon oxide.

4. (Previously Presented) A device according to claim 1 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

5. (Original) A device according to claim 1 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

6. (Original) A device according to claim 1 consisting of 640 x 480 pixels arranged in a matrix form.

7. (Original) A device according to claim 1 consisting of 1260 x 960 pixels arranged in a matrix form.

8. (Original) A device according to claim 1 further comprising a conductive film formed on said interlayer insulating film and electrically connected to said thin film transistor through a contact hole formed in said interlayer insulating film.

9. (Original) A device according to claim 8 wherein said pixel electrode is connected to said thin film transistor via said conductive film.

10. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least one thin film transistor formed on said insulating surface, said thin film transistor having a semiconductor layer comprising source, drain and channel regions;

an insulating film comprising an inorganic material formed on said thin film transistor;

an organic resin film provided over said insulating film; and

a pixel electrode formed over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film,

wherein said semiconductor layer exhibits a peak of Raman spectra, displaced from 522 cm^{-1} to the lower frequency direction, and

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

11. (Original) A device according to claim 10 wherein said pixel electrode is a transparent conductive film.

12. (Original) A device according to claim 10 wherein said inorganic material comprises silicon oxide.

13. (Original) A device according to claim 10 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

14. (Original) A device according to claim 10 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

15. (Original) A device according to claim 10 consisting of 640 x 480 pixels arranged in a matrix form.

16. (Original) A device according to claim 10 consisting of 1260 x 960 pixels arranged in a matrix form.

17. (Original) A device according to claim 10 further comprising a conductive film formed on said interlayer insulating film and electrically connected to said thin film transistor through a contact hole formed in said interlayer insulating film.

18. (Original) A device according to claim 17 wherein said pixel electrode is connected to said thin film transistor via said conductive film.

19. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least one thin film transistor formed on said insulating surface, said thin film transistor comprising:

a semiconductor layer having source, drain and channel regions;

a gate insulating layer adjacent to said channel region; and

a gate electrode adjacent to said channel region;

an insulating film comprising an inorganic material formed on said thin film transistor; and

an organic resin film provided over said insulating film;

wherein said semiconductor layer exhibits a peak of Raman spectra, displaced from a peak of single crystalline silicon to the lower frequency direction,

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

20. (Original) A device according to claim 19 further comprising a pixel electrode formed over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film.

21. (Original) A device according to claim 20 wherein said pixel electrode is a transparent conductive film.

22. (Original) A device according to claim 19 wherein said inorganic material comprises silicon oxide.

23. (Original) A device according to claim 19 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

24. (Original) A device according to claim 19 wherein said gate insulating film is 500Å to 2000Å thick.

25. (Original) A device according to claim 19 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

26. (Original) A device according to claim 19 consisting of 640 x 480 pixels arranged in a matrix form.

27. (Original) A device according to claim 19 consisting of 1260 x 960 pixels arranged in a matrix form.

28. (Previously Presented) A device according to claim 19 wherein said semiconductor layer has an electron mobility of 15 to 300 $cm^2/Vsec$.

29. (Previously Presented) A device according to claim 19 wherein said semiconductor layer has a hole mobility of 10 to 200 $cm^2/Vsec$.

30. (Original) A device according to claim 19 further comprising a conductive film formed on said interlayer insulating film and electrically connected to said thin film transistor through a contact hole formed in said interlayer insulating film.

31. (Original) A device according to claim 30 wherein said pixel electrode is connected to said thin film transistor via said conductive film.

32. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least one thin film transistor formed on said insulating surface, said thin film transistor comprising:

a semiconductor layer having source, drain and channel regions;

a gate insulating layer adjacent to said channel region;

an insulating film comprising an inorganic material formed on said thin film transistor; and

an organic resin film provided over said thin film transistor and said insulating film;

wherein said semiconductor layer comprises silicon and exhibits a peak of Raman spectra, displaced from 522 cm^{-1} to the lower frequency direction, and

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

33. (Original) A device according to claim 32 further comprising a pixel electrode formed over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film.

34. (Original) A device according to claim 33 wherein said pixel electrode is a transparent conductive film.

35. (Original) A device according to claim 32 wherein said inorganic material comprises silicon oxide.

36. (Original) A device according to claim 32 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

37. (Original) A device according to claim 32 wherein said gate insulating film is 500Å to 2000Å thick.

38. (Original) A device according to claim 32 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

39. (Original) A device according to claim 32 consisting of 640 x 480 pixels arranged in a matrix form.

40. (Original) A device according to claim 32 consisting of 1260 x 960 pixels arranged in a matrix form.

41. (Previously Presented) A device according to claim 32 wherein said semiconductor layer has an electron mobility of 15 to 300cm^2/Vsec.

42. (Previously Presented) A device according to claim 32 wherein said semiconductor layer has a hole mobility of 10 to 200 cm^2/Vsec.

43. (Original) A device according to claim 32 further comprising a conductive film formed on said interlayer insulating film and electrically connected to said thin film transistor through a contact hole formed in said interlayer insulating film.

44. (Original) A device according to claim 43 wherein said pixel electrode is connected to said thin film transistor via said conductive film.

45. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least an n-channel thin film transistor and at least a p-channel thin film transistor both formed over said first substrate, each of said n-channel and p-channel thin film transistors comprising:

a semiconductor layer having source, drain and channel regions;

a gate insulating layer adjacent to said channel region; and

a gate electrode adjacent to said channel region;

an insulating film comprising an inorganic material formed on said thin film transistor; and

an organic resin film provided over said insulating film;

wherein said semiconductor layer exhibits a peak of Raman spectra, displaced from a peak of single crystalline silicon to the lower frequency direction, and

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

46. (Original) A device according to claim 45 further comprising a pixel electrode formed over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film.

47. (Original) A device according to claim 46 wherein said pixel electrode is a transparent conductive film.

48. (Original) A device according to claim 45 wherein said inorganic material comprises silicon oxide.

49. (Original) A device according to claim 45 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

50. (Original) A device according to claim 45 wherein said gate insulating film is 500Å to 2000Å thick.

51. (Original) A device according to claim 45 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

52. (Original) A device according to claim 45 consisting of 640 x 480 pixels arranged in a matrix form.

53. (Original) A device according to claim 45 consisting of 1260 x 960 pixels arranged in a matrix form.

54. (Previously Presented) A device according to claim 45 wherein said semiconductor layer has an electron mobility of 15 to 300cm^2/Vsec.

55. (Previously Presented) A device according to claim 45 wherein said semiconductor layer has a hole mobility of 10 to 200 cm^2/Vsec.

56. (Original) A device according to claim 45 further comprising a conductive film formed on said interlayer insulating film and electrically connected to said thin film transistor through a contact hole formed in said interlayer insulating film.

57. (Original) A device according to claim 56 wherein said pixel electrode is connected to said thin film transistor via said conductive film.

58. (Original) A device according to claim 1, wherein said organic resin film comprises polyimide.

59. (Original) A device according to claim 10, wherein said organic resin film comprises polyimide.

60. (Original) A device according to claim 19, wherein said organic resin film comprises polyimide.

61. (Original) A device according to claim 32, wherein said organic resin film comprises polyimide.

62. (Original) A device according to claim 45, wherein said organic resin film comprises polyimide.

63. (Original) A device according to claim 1, wherein said channel region comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

64. (Original) A device according to claim 10, wherein said channel region comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

65. (Original) A device according to claim 19, wherein said channel region comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

66. (Original) A device according to claim 32, wherein said channel region comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

67. (Original) A device according to claim 45, wherein said channel region of each of the n-channel and p-channel thin film transistors comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

68. (Currently Amended) A semiconductor device comprising:

a substrate having an insulating surface;

at least one thin film transistor formed on said insulating surface, said thin film transistor comprising:

a semiconductor layer having source, drain and channel regions;

an insulating film comprising an inorganic material formed on said thin film transistor;

an organic resin film provided over said insulating film; and

a pixel electrode provided over said organic resin film and connected to said thin film transistor through an opening provided in said organic resin film;

wherein said semiconductor layer exhibits a peak of Raman spectra, displaced from 522 cm^{-1} to the lower frequency direction, and

wherein said semiconductor layer has ~~substantially no grain boundaries~~ a semi-amorphous structure in which Si-Si bonds anchor clusters.

69. (Previously Presented) A device according to claim 68 wherein said pixel electrode is a transparent conductive film.

70. (Previously Presented) A device according to claim 68 wherein said inorganic material comprises silicon oxide.

71. (Previously Presented) A device according to claim 68 wherein said channel region comprises a material selected from the group consisting of silicon, germanium and a combination thereof.

72. (Previously Presented) A device according to claim 68 wherein said interlayer insulating film is 0.2 to 0.6 μm thick.

73. (Previously Presented) A device according to claim 68 consisting of 640 x 480 pixels arranged in a matrix form.

74. (Previously Presented) A device according to claim 68 consisting of 1260 x 960 pixels arranged in a matrix form.

75. (Previously Presented) A device according to claim 68, wherein said organic resin film comprises polyimide.

76. (Previously Presented) A device according to claim 68, wherein said channel region comprises boron at concentration in a range of 1×10^{15} - 1×10^{18} cm^{-3}.

77. (Previously Presented) A semiconductor device according to claim 1, wherein said semiconductor layer has an electron mobility of 15 to 300 $cm^2/Vsec$.

78. (Previously Presented) A semiconductor device according to claim 1, wherein said semiconductor layer has a hole mobility of 10 to 200 $cm^2/Vsec$.

79. (Previously Presented) A semiconductor device according to claim 10, wherein said semiconductor layer has an electron mobility of 15 to 300 $cm^2/Vsec$.

80. (Previously Presented) A semiconductor device according to claim 10, wherein said semiconductor layer has a hole mobility of 10 to 200 $cm^2/Vsec$.